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ABSTRACT

This document discusses barriers that impede the progress and participation of Hispanic American students in mathematics and science education, and recommends extensive educational reforms. Following an introduction, the first of two main sections reviews the current Hispanic American underrepresentation in mathematics and science and describes the following barriers: (1) low socioeconomic status; (2) poor academic performance; (3) non-participation in high school academic programs; (4) academically-related problems; (5) enrollment in remedial courses; (6) gender problems; (7) discriminatory practices; (8) changes in major programs of study at the college level; (9) mathematics fear, anxiety, and avoidance; (10) institutional curricular deficiencies; (11) teacher shortages; and (12) low transfer rates from two- to four-year colleges. The second major section discusses making science and mathematics work for Hispanic Americans through a series of the following proposed reforms: (1) reform of the kindergarten through 12th-grade system with regard to academic tracks, good teachers, curriculum reform, encouragement of mathematics and science study, parent involvement, higher achievement levels, test-taking workshops, college-track participation, high expectations, and teacher development; (2) enhanced postsecondary experience; (3) involvement of community-based organizations; and (4) addressing research gaps. A short conclusion emphasizes the importance of the issues raised. One graph, three tables, and 31 references are included. (JB)